



9.40 BOROUGH OF WHARTON

This section presents the jurisdictional annex for the Borough of Wharton. The annex includes a general overview of the Borough of Wharton; an assessment of the Borough of Wharton’s risk, vulnerability, and mitigation capabilities; and a prioritized action plan to implement prior to a disaster to reduce future losses and achieve greater resilience to natural hazards.

9.40.1 Hazard Mitigation Planning Team

The following individuals are the Borough of Wharton’s identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Table 9.40-1. Hazard Mitigation Planning Team

| Primary Point of Contact | Alternate Point of Contact |
|--|--|
| Name / Title: Gene Caulfield, OEM Coordinator Address: 500 West Hanover Avenue, Parsippany, New Jersey 07054 Phone Number: 856-649-3445 Email: eugene.caulfield@verizon.net | Name / Title: David Young, Deputy OEM Address: 500 West Hanover Avenue, Parsippany, New Jersey 07054 Phone Number: 973-919-5542 Email: dyoung@whartonpd.org |
| NFIP Floodplain Administrator | |
| Name / Title: Pedro Moreno, Housing and Zoning Officer Address: 500 West Hanover Avenue, Parsippany, New Jersey 07054 Phone Number: 862-397-2721 Email: cmoreno@whartonnj.com | |

9.40.2 Jurisdiction Profile

The Borough of Wharton is a community located in the highlands of Morris County. The Borough is located between Routes 15, 46, and 80, stretching south from the main entrance of Picatinny Arsenal to Route 46. The Borough of Wharton is bounded to the west by the Township of Roxbury and to the east by the Town of Dover and the Township of Roxbury. The Borough is approximately 2.2 square miles in size.

According to the U.S. Census, the 2010 population for the Borough of Wharton was 6,522. The estimated 2017 population was 6,591, a 1.1 percent increase from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 5.6 percent of the population is 5 years of age or younger and 13.2 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.40.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.40-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figures 9.40-1 and 9.40-2 at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.



Table 9.40-2. Recent and Expected Future Development

| Type of Development | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---------------------|-------------------------|---|-----------------------|-------------------------------------|
| Number of Building Permits for New Construction Issued Since the Previous HMP | | | | | |
| Single Family | 1 | 0 | 0 | 0 | 1 |
| Multi-Family | 0 | 0 | 0 | 1 | 2 |
| Other (commercial, mixed-use, etc.) | 0 | 0 | 0 | 0 | 1 |
| Property or Development Name | Type of Development | # of Units / Structures | Location (address and/or block and lot) | Known Hazard Zone(s)* | Description / Status of Development |
| Recent Major Development and Infrastructure from 2015 to Present | | | | | |
| None | | | | | |
| Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years | | | | | |
| 175 N. Main Street | Mixed use | 70 Units, Retail | 175 N. Main Street | - | In progress |
| 123 N. Main Street | Residential | 100 Units | 123 N. Main Street | - | In progress |
| Canal House | Residential | 60 Units | 47 Kossuth Street | - | In progress |
| Wharton Woods | Residential | 66 units | Old Irondale Road | - | In progress |
| 105 W. Dewey Street | Commercial | 1 building | 105 W. Dewey St | - | In progress |
| Main Street Redevelopment | Mixed use | Multiple | Main Street | - | In progress |

* Only location-specific hazard zones or vulnerabilities identified.

9.40.4 Capability Assessment

The Borough of Wharton performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized below. The Borough of Wharton identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

PLANNING, LEGAL AND REGULATORY CAPABILITY

The table below summarizes the legal and regulatory tools that are available to the Borough of Wharton and where hazard mitigation has been integrated.



Table 9.40-3. Planning, Legal and Regulatory Capability

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|---|-------------------------------|--|-----------------------------|---|---|
| | | | | If yes- how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| Codes, Ordinances, & Requirements | | | | | |
| Building Code | Yes | Local and State | Yes | No | No |
| <i>Comment: State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019. Enforced by the Building Department, State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)</i> | | | | | |
| Zoning Code | Yes | Local | Yes, if have planning board | No | No |
| <i>Comment: State permissive on local level. [note local ordinance # and date of adoption]. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. Enforced by the Housing Zoning Officer, Chapter 165.</i> | | | | | |
| Subdivisions | Yes | Local | Yes, if have planning board | No | No |
| <i>Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval. Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. Enforced by the Housing Zoning Officer, Chapter 165-45.</i> | | | | | |
| Stormwater Management | Yes | State and Local | Yes | No | No |
| <i>Comment: See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8. Enforced by Housing and Zoning, Chapter 267.</i> | | | | | |
| Post-Disaster Recovery | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Real Estate Disclosure | No | State | Yes | - | - |
| <i>Comment: Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</i> | | | | | |
| Growth Management | No | Local and State | Yes, if have planning board | - | - |
| <i>Comment: State Mandated on a municipal level. See Zoning Ordinance. Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.</i> | | | | | |
| Shoreline Development | No | - | - | - | - |
| <i>Comment: NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone Management Rules N.J.A.C. 7:7E-1 et seq.</i> | | | | | |
| Site Plan Review | Yes | Local | Yes | - | - |
| <i>Comment: Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by county planning board and for the approval of those subdivisions affecting county road or drainage facilities. 40:27-6.10: Each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county</i> | | | | | |





| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|--|-------------------------------|--|------------------------|---|---|
| | | | | If yes-how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| <i>lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Enforced by Planning Board, Chapter 165.</i> | | | | | |
| Environmental Protection | Yes | Local | Yes | No | No |
| <i>Comment: Chapter 12 Article 1 establishes an Environmental Commission of the Borough of Wharton. There is no evidence that the commission is currently active.</i> | | | | | |
| Flood Damage Prevention | Yes | Local | No | No | No |
| <i>Comment: The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Enforced by Housing and Zoning, Chapter 142.</i> | | | | | |
| Wellhead Protection | No | - | No | - | - |
| <i>Comment: Delineation of well head protection areas (WHPAs) is part of the NJ-approved 1991 well head protection plan (WHPP) for public community water supply wells. These are priority areas for efforts to prevent and clean up ground water contamination. Municipalities are empowered to regulate land use, physical facilities and other activities within WHPAs areas, the potential for groundwater contamination can be reduced under the provisions of the New Jersey Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., which authorizes each municipality to plan and regulate land use to secure a safe and adequate drinking water supply for its residents. Also refer to Safe Drinking Water Regulations (NJAC 7:10-11.7(b)1).</i> | | | | | |
| Emergency Management | No | - | Yes | - | - |
| <i>Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. See Emergency Operations Plans below.</i> | | | | | |
| Climate Change | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Disaster Recovery Ordinance | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Disaster Reconstruction Ordinance | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Other: Tree Preservation | Yes | Local | Yes | No | No |
| <i>Comment: §165-98, Tree Preservation. §165-57 Easements; natural features; utilities. B. Natural features such as trees, forested areas, brooks, hilltops and views shall be preserved whenever possible in designing any subdivision containing such features. Trees six (6) inches or greater in diameter should be preserved to enhance soil stability. §165-62 Shade trees, planting strips and landscaping. A. Shade trees shall be provided in all major residential subdivisions and in minor subdivisions where deemed appropriate by the Planning Board. Trees shall be planted within the subdivision along each side of the street at proper intervals and in types, sizes and locations conducive to healthy growth, with graded and seeded or sodded planting strips within street rights-of-way, and according to any standards adopted by the Governing Body or Borough Shade Tree Commission, so as not to interfere with street paving, sidewalks or utilities.</i> | | | | | |
| Other: Steep Slopes | Yes | Local | Yes | No | No |
| <i>Comment: §165-99, Steep Slopes. §165-57 Trees six (6) inches or greater in diameter should be preserved to enhance soil stability. Additionally, landscaping should incorporate the use of native species.</i> | | | | | |
| Planning Documents | | | | | |
| Master Plan | Yes | Local | Yes | No | No |
| <i>Comment: Per NJSA 40:55D-28. Enforced by the Planning Board, March 2015.</i> | | | | | |
| Capital Improvement Plan | Yes | Local | Allowed | No | No |
| <i>Comment: Per NJSA 40:55D-29) the governing body is authorized to direct the planning board to prepare a CIP with at least a six year planning horizon. Enforced by the Borough Council, Annual Capital Plans Recent Ordinance # - 7-2015.</i> | | | | | |
| Disaster Debris Management Plan | No | - | No | - | - |





| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|--|-------------------------------|--|------------------------|---|---|
| | | | | If yes-how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| <i>Comment:</i> | | | | | |
| Floodplain or Watershed Plan | Yes | Local | No | No | No |
| <i>Comment: Highlands Regional Master Plan has been integrated with Stormwater Management Plan.</i> | | | | | |
| Stormwater Management Plan | Yes | Local | Yes | No | No |
| <i>Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). Borough of Wharton Stormwater Management Plan December 2018. Enforced by the OEM, Chapter 267.</i> | | | | | |
| Stormwater Pollution Prevention Plan | Yes | Local | Yes | No | No |
| <i>Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). Stormwater Pollution Prevention Plan Borough of Wharton 7/29/2019 http://www.whartonnj.com/images/Wharton_SPMP_7-29-19.pdf</i> | | | | | |
| Urban Water Management Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Habitat Conservation Plan | No | - | No | - | - |
| <i>Comment: May develop a conservation plan element in master plan per NJSA 40:5D-28b (8).</i> | | | | | |
| Economic Development Plan | No | - | No | - | - |
| <i>Comment: Per NJSA 40:55D-28b. (9) There can be a generic Economic Development Element of the County Comprehensive Plan. Municipality can establish Economic Development Commission that can facilitate incentive programs (façade programs, low-interest loans, etc.)</i> | | | | | |
| Shoreline Management Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Community Wildfire Protection Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Community Forest Management Plan | No | - | No | - | - |
| <i>Comment: Optional accreditation for county and municipalities for reduction of liability, New Jersey Urban and Community Forestry Program (NJUCF).</i> | | | | | |
| Transportation Plan | No | - | No | - | - |
| <i>Comment: May develop a circulation plan element in master plan per NJSA 40:55D-28b. (4).</i> | | | | | |
| Agriculture Plan | No | - | No | - | - |
| <i>Comment: May develop a farmland preservation plan element per NJSA 40:5D-28b (13).</i> | | | | | |
| Climate Action Plan | No | - | No | - | - |
| <i>Comment: May develop a green building and environmental sustainability plan element per NJSA 40:5D-28b (16).</i> | | | | | |
| Tourism Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Business Development Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Other: Open Space and Recreation Element | Yes | Local | Allowed | - | - |
| <i>Comment: 2001 Open Space Plan</i> | | | | | |
| Response/Recovery Planning | | | | | |
| Emergency Operations Plan (EOP) | Yes | Local | Yes | No | No |
| <i>Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. OEM retains copy of the EOP.</i> | | | | | |
| Threat & Hazard Identification & Risk Assessment (THIRA) | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Post-Disaster Recovery Plan | Yes | Local | No | No | No |





| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|--|-------------------------------|--|------------------------|---|---|
| | | | | If yes-how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| <i>Comment: Enforced by OEM, EOP 2014.</i> | | | | | |
| Continuity of Operations Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Public Health Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Other | No | - | No | - | - |
| <i>Comment:</i> | | | | | |

Table 9.40-4. Development and Permitting Capability

| Criterion | Response |
|--|--------------------|
| Does your jurisdiction issue development permits? - If no, who does? If yes, which department? | Yes Zoning |
| Does your jurisdiction have the ability to track permits by hazard area? | No |
| Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction. | No 90% Buildout |

ADMINISTRATIVE AND TECHNICAL CAPABILITY

The table below summarizes potential staff and personnel resources available to the Borough of Wharton.

Table 9.40-5. Administrative and Technical Capabilities

| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|---|
| Administrative Capability | | |
| Planning Board | Yes | Planning Board |
| Mitigation Planning Committee | No | - |
| Environmental Board / Commission | No | Environmental Commission established by ordinance, Green Team for Sustainable Jersey established 2014.. |
| Open Space Board / Committee | Yes | Mayor and Council |
| Economic Development Commission / Committee | No | - |
| Warning Systems / Services (reverse 911, outdoor warning signals) | Yes | Everbridge, AlertMorris |
| Maintenance program to reduce risk | No | - |
| Mutual aid agreements | Yes | Mayor, OEM |
| Technical/Staffing Capability | | |
| Planners or engineers with knowledge of land development and land management practices | Yes | Contractor |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Borough Engineer, Contractor |





| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|----------------------------|
| Planners or engineers with an understanding of natural hazards | Yes | Contractor |
| Staff with training in benefit/cost analysis | Yes | Grant Coordinator |
| Staff with training in green infrastructure | No | - |
| Staff with education/knowledge/training in low impact development | No | - |
| Surveyor | Yes | Contractor |
| Stormwater engineer | Yes | Contractor |
| Personnel skilled or trained in GIS applications | Yes | Contractor |
| Local or state water quality professional | Yes | Highlands Commission |
| Scientist familiar with natural hazards in local area | No | - |
| Emergency manager | Yes | OEM Coordinator |
| Watershed planner | Yes | Highlands Commission |
| Environmental specialist | No | - |
| Grant writers | Yes | Grant Coordinator |
| Resilience Officer | No | - |
| Other | No | - |

FISCAL CAPABILITY

The table below summarizes financial resources available to the Borough of Wharton.

Table 9.40-6. Fiscal Capabilities

| Financial Resource | Accessible or Eligible to Use? |
|--|--------------------------------|
| Community Development Block Grants (CDBG, CDBG-DR) | Yes |
| Capital Improvements Project Funding | Yes |
| Authority to Levy Taxes for Specific Purposes | Yes |
| User Fees for Water, Sewer, Gas or Electric Service | Yes, Water and Sewer |
| Incur Debt through General Obligation Bonds | Yes |
| Incur Debt through Special Tax Bonds | Yes |
| Incur Debt through Private Activity Bonds | Yes |
| Withhold Public Expenditures in Hazard-Prone Areas | No |
| State-Sponsored Grant Programs | Yes |
| Development Impact Fees for Homebuyers or Developers | No |
| Clean Water Act 319 Grants (Nonpoint Source Pollution) | No |
| Other | No |

EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Wharton.

Table 9.40-7. Education and Outreach Capabilities

| Criterion | Response |
|--|-----------------------------------|
| Do you have a public information officer or communications office? | Yes. Borough Administration, OEM, |
| Do you have personnel skilled or trained in website development? | Yes. Contractor |





| Criterion | Response |
|--|---|
| Do you have hazard mitigation information available on your website? • If yes, briefly describe. | Yes. OEM website provides link to County OEM |
| Do you use social media for hazard mitigation education and outreach? • If yes, briefly describe. | Yes. Facebook, Twitter |
| Do you have any citizen boards or commissions that address issues related to hazard mitigation? • If yes, briefly describe. | Planning Board, Zoning Board Environmental Commission is established by ordinance. |
| Do you have any other programs already in place that could be used to communicate hazard-related information? • If yes, briefly describe. | Yes. Municipal Alliance |
| Do you have any established warning systems for hazard events? • If yes, briefly describe. | Yes. Everbridge, AlertMorris |

COMMUNITY CLASSIFICATIONS

The table below summarizes the classifications for community programs available to the Borough of Wharton.

Table 9.40-8. Community Classifications

| Program | Participating? | Classification | Date Classified |
|--|----------------|----------------|-----------------|
| Community Rating System | No | - | - |
| Building Code Effectiveness Grading Schedule (BCEGS) | No | - | - |
| Public Protection (Fire ISO Protection Class) | Yes | 5 | 2014 |
| Storm Ready Certification | No | - | - |
| Firewise Community Classification | No | - | - |

ADAPTIVE CAPACITY

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions.

The municipality has access to resources to determine the possible impacts of climate change upon the municipality. The administration supports integrating climate change in policies or actions. Climate change is not being integrated into current policies/plans or actions (projects/monitoring) within the municipality.

The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.40-9. Adaptive Capacity

| Hazard | Adaptive Capacity (Capabilities) - High/Medium/Low |
|---------------------|--|
| Dam Failure | Medium |
| Disease Outbreak | Medium |
| Drought | Medium |
| Earthquake | Medium |
| Extreme Temperature | Medium |
| Flood | Medium |



| Hazard | Adaptive Capacity (Capabilities) - High/Medium/Low |
|-----------------------|--|
| Geological Hazards | Medium |
| Harmful Algal Bloom | Medium |
| Hazardous Materials | Medium |
| Infestations | Medium |
| Severe Weather | Medium |
| Severe Winter Weather | Medium |
| Wildfire | Medium |

NATIONAL FLOOD INSURANCE PROGRAM

This section provides specific information on the management and regulation of the regulatory floodplain.

Table 9.40-10. National Flood Insurance Program Compliance

| Criterion | Response |
|--|---|
| What local department is responsible for floodplain management? | Engineering |
| Who is your floodplain administrator? (name, department/position) | Housing and Zoning Officer |
| Are any certified floodplain managers on staff in your jurisdiction? | No |
| What is the date that your flood damage prevention ordinance was last amended? | July 9, 2001 |
| Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? | Meets |
| When was the most recent Community Assistance Visit or Community Assistance Contact? | 11/05/1992 |
| Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, state what they are. | No |
| Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what they are. | Yes Morris County maps are in appeal |
| Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If no, state why. | Yes |
| Does your floodplain management staff need any assistance or training to support its floodplain management program? | No |
| <input type="checkbox"/> If so, what type of assistance/training is needed? | n/a |
| Does your jurisdiction participate in the Community Rating System (CRS)? <ul style="list-style-type: none"> If yes, is your jurisdiction interested in improving its CRS Classification? If no, is your jurisdiction interested in joining the CRS program? | No |
| How many flood insurance policies are in force in your jurisdiction?* | 6 |
| <ul style="list-style-type: none"> What is the insurance in force? What is the premium in force? | \$1,994,100 \$20,085 |
| How many total loss claims have been filed in your jurisdiction?* | 9 |
| <ul style="list-style-type: none"> How many claims are still open or were closed without payment? What were the total payments for losses? | 4 \$77,648 |
| Do you maintain a list of properties that have been damaged by flooding? | No |
| Do you maintain a list of property owners interested in flood mitigation? | No |

Policies and Claims from <https://bsa.nfipstat.fema.gov/reports/1011.htm> and <https://bsa.nfipstat.fema.gov/reports/1040.htm> as of 09/30/2018





ADDITIONAL AREAS OF EXISTING INTEGRATION

In its 2018 Stormwater Management Plan, the Borough of Wharton identified specific mitigation projects using green infrastructure at Robert Street Park, Dewey Avenue Park, and Wharton Public Library. In addition, the borough identified the following other locations for mitigation projects to address water quality (WQL), water quantity (WQN), and groundwater recharge (GWR):

- Old Irondale Road - HUC HUC02030103030070 (WQN,GWR).
- Deszo Street - HUC HUC02030103030070 (WQN, GWR).
- Columbia Street Park - HUC HUC02030103030070 (WQN,GWR).
- Burns Street (runoff to Morris Canal) - HUC HUC02030103030070 (WQN,GWR).
- Hurd Street (runoff to Morris Canal) - HUC02030103030070 (WQN,GWR).
- Oxford Road - HUC02030103030070 (WQN).
- School Rear Parking Lot - HUC02030103030070 (WQN).
- Municipal Parking Lot on North Main Street - HUC02030103030070 (WQL).
- Municipal Building Parking Lot - HUC02030103030070 (WQL).
- DPW Facility Parking Lot - HUC02030103030070 (WQL).

9.40.5 Hazard Event History Specific to the Jurisdiction

Morris County has a history of hazard events, as detailed in Section 4 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 4.4 (Hazard Profiles) and includes a chronology of events that affected Morris County and its jurisdictions. The Borough of Wharton’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Morris County. Table 9.40-11 provides details regarding municipal-specific loss and damages the Borough of Wharton experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.40-11. Hazard Event History

| Date(s) of Event | Event Type (disaster declaration if applicable) | Morris County Designated? | Summary of Event | Summary of Local Damages and Losses |
|---------------------|---|---------------------------|--|---|
| January 21-24, 2016 | Severe Winter Storm and Snowstorm | Yes | An impulse from the west coast traversed the midsection of the country, then developed into a low-pressure system as it tracked across the Gulf States before intensifying along the Carolina coast into a major nor'easter, producing record snowfall in parts of New Jersey on January 23rd. It then moved out to sea after passing by the mid-Atlantic coast early on January 24th. Wind gusts up to 60 MPH produced blizzard conditions as visibilities dropped to one-quarter mile or less in spots. Snowfall totals included 21.0 inches in Chatham. | The Borough did not report losses for this event. |
| March 6-7, 2018 | Severe Winter Storm and Snowstorm | Yes | Precipitation gradually overspread the region during the overnight hours of March 6th to | The Borough did not report losses for this event. |





| Date(s) of Event | Event Type (disaster declaration if applicable) | Morris County Designated? | Summary of Event | Summary of Local Damages and Losses |
|------------------|---|---------------------------|---|-------------------------------------|
| | | | the 7th. 12 to 24 inches were observed across large parts of Morris County. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey, especially where the heaviest snow was reported. | |

9.40.6 Jurisdiction-Specific Vulnerabilities and Hazard ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Table 9.40-12 summarizes the hazards of greatest concern and risk to the Borough of Wharton.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Table 9.40-12. Risk Assessment

| Hazard of Concern | Hazard/ Scenario Area Evaluated | Population | | Buildings | | Economy (Loss) | | Certainty Factor |
|----------------------------|--|---|-----|---|-----|--|--------------|------------------|
| Dam Failure | Partial or complete failure of a dam There is 1 dam in the Borough, according to NJDEP. | Population impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure. | | The number of building impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure. | | Economic impacts include dam/building/infrastructure repairs; debris removal/disposal; utility impacts. | | Low |
| Disease Outbreak | Disease Outbreaks which include: Mosquito-Borne Diseases, Tick-Borne Diseases, Campylobacteriosis, Influenza, Mumps, Ebola | Population impacted is dependent on the disease and severity of the outbreak; in some cases immunocompromised persons are more vulnerable. | | Structural impacts due to disease outbreak would be limited. | | Economic losses can include County financial impacts to monitor/address outbreaks; lost wages or commercial interruptions; depends on the severity and type of disease outbreak. | | Low |
| Drought | Prolonged drought event - The County is serviced by water supplies who primarily get water from groundwater sources; some surface water sources. | Entire population exposed. Population on surface water supplies may be impacted first; water restrictions/contamination; increased wildfire risk. | | Droughts are not expected to cause direct damage to buildings. | | Losses include aesthetic, landscape/nursery/agricultural industry impacts. | | Low |
| Earthquake | "100, 500-, 2,500-Year Mean Return Period (MRP) Events evaluated | NEHRP D&E: | 675 | NEHRP D&E: | 250 | 100-year Loss: | \$0 | High |
| | NEHRP Soils D&E (soft soils that amplify ground shaking are present in the County" | Liquefaction Class 4: | 0 | Liquefaction Class 4: | 0 | 500-year Loss: | \$1,152,822 | |
| | | | | | | 2,500-year Loss: | \$18,248,132 | |
| Extreme Temperature | Extreme temperature event (heat or cold) | Over 65 Population: | 873 | Physical impacts due to extreme temperatures would be limited. | | Loss of business function is possible due to unexpected repairs (i.e. pipes bursting) or power failures. | | Low |
| | | Population Below Poverty Level: | 270 | | | | | |
| Flood | 100- and 500-Year Mean Return Period Event | 100-year | 0 | 100-year | 4 | 100-year Loss: | \$20,730,246 | High |
| | | 500-year | 4 | 500-year | 10 | | | |
| Geological | | Class A: | 0 | Class A: | 0 | Class A: | 0 | Moderate |





| Hazard of Concern | Hazard/ Scenario Area Evaluated | Population | | Buildings | | Economy (Loss) | | Certainty Factor |
|------------------------------|---|---|---|---|---|---|-------------|------------------|
| | | Class B: | 0 | Class B: | 0 | Class B: | \$0 | |
| | High Landslide Susceptibility Areas and Areas developed over carbonate rock | Carbonate Bedrock: | 0 | Carbonate Bedrock: | 0 | Carbonate Bedrock: | \$0 | |
| Harmful Algal Bloom | Any body of water or area adjacent that is susceptible to harmful algal bloom. | Population in contact (e.g., swimming) or drinking water from surface water impacted can result in a range of health effects | | General building stock impacts due to harmful algal bloom are not anticipated. Critical facilities (i.e., water treatment plants) could lead to plant closures. | | Economic impacts range from recreational closure of impacted waterbodies; cost to sample/monitor/remediate. | | Low |
| Hazardous Substance | Release of a hazardous substance from a fixed site. | Population impacted will depend on the type of material and scale of the incident. May include population within small radii of site. | | The degree of damages to a building depends on the scale of the incident. | | The degree of damages depends on the scale of the incident. | | Low |
| Infestation | Infestation including: Insects [e.g. Gypsy Moth, Mosquitoes, Spotted Lanternfly, Emerald Ash Borer], White-Tailed Deer, Rodents | Population impacted will depend on the type and severity of infestation and may cause an increased risk for disease outbreak. | | Physical impacts will be limited to indirect impacts from invasive species which affect crops and vegetation. | | Economic impact will depend on the type and severity of infestation and may cause an increased risk for disease outbreak. | | Low |
| Severe Weather | Severe Weather Event | Entire population exposed; The degree of impact to the population depends on the scale of the incident. | | Entire building stock is exposed; The degree of impact depends on the scale of the incident. | | Annualized Loss: | \$14,311 | High |
| | | | | | | 100 -Year Loss: | \$431,896 | |
| | | | | | | 500-year Loss: | \$2,354,198 | |
| Severe Winter Weather | Severe Winter Weather Event | All residents/commuters/visitors are exposed; socially-vulnerable populations may be at increased risk. | | All buildings are exposed; the degree of impact depends on the scale of the incident. | | The cost of snow and ice removal and repair of roads/infrastructure can impact operating budgets. | | Low |
| Wildfire | Wildfire Fuel Hazard areas (High, Very High, Extreme) | Wildfire: | 0 | Wildfire: | 0 | Wildfire: | \$0 | Moderate |



REPETITIVE FLOOD LOSSES

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Wharton.

- Number of repetitive loss (RL) properties: 0
- Number of severe repetitive loss (SRL) properties: 1
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA BureauNet, 2019

Note: RL and SRL as of 04/26/2019; The number of SRL properties excludes RL properties and includes properties that have been verified only (SRL_Indicator = V).

CRITICAL FACILITIES

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain.

Table 9.40-13. Potential Flood Losses to Critical Facilities and Lifelines

| Name | Type | Exposure | | Status of Mitigation |
|---|------|----------|------------|----------------------|
| | | 1% Event | 0.2% Event | |
| No critical facilities are located in the FEMA 1% and 0.2% Flood Hazard Area. | | | | |

Source: Morris County, 2019; FEMA 2014/2017/2018; HAZUS-MH v4.2, <https://nid.sec.usace.army.mil/ords/f?p=105:113:8713532089703::NO::>

ADDITIONAL IDENTIFIED VULNERABILITIES

The jurisdiction did not identify additional vulnerabilities within their community.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Borough of Wharton that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the Borough of Wharton has significant exposure. Refer to Figures 9.40-1 and 9.40-2.

HAZARD RANKING

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; its potential impacts on people, property, and the economy; community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 4.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Morris County as a whole. Therefore, each jurisdiction ranked the degree of risk to each hazard as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential natural hazards for the Borough of Wharton. The Borough of Wharton received the Morris County hazard ranking table, as well as its individual results, to reflect the relative risk of the hazards of concern to the community. The Borough of Wharton agreed with the risk assessment results presented below.



Table 9.40-14. Borough of Wharton Hazard Ranking Input

| Dam Failure | Disease Outbreak | Drought | Earthquake | Extreme Temperature | Flood | Geological Hazard |
|-------------|------------------|---------|------------|---------------------|--------|-------------------|
| Medium | High | Medium | Medium | Medium | Medium | Low |

| Harmful Algal Bloom | Hazardous Substances | Infestation | Severe Weather | Severe Winter Weather | Wildfire |
|---------------------|----------------------|-------------|----------------|-----------------------|----------|
| Low | High | Medium | High | High | Low |

9.40.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and provides action prioritization.

PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2015 HMP. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and can also be found under ‘Capability Assessment’ presented previously in this annex.

Table 9.40-15. Status of Previous HMP Mitigation Actions

| 2015 Action Number Action Description | Responsible Party | Status (In Progress, No Progress, Ongoing Capability, or Completed) | Include in the 2020 HMP Update? | |
|---|------------------------------------|---|---------------------------------|-------------------------|
| | | | Check if Yes | Enter 2020 HMP Action # |
| #1- Back Up Generator for Fire Department | Wharton Fire Department | No progress to date. There is no funding available to implement the project using the municipal budget. Generator still needed; refer to project 2020-Wharton-001 | X | 2020-Wharton-001 |
| #2- Install storm-water overflow weir for Washington Pond Dam | Borough of Wharton Engineer | No progress. A study is proposed to determine feasible action for the dam; refer to project 2020-Wharton-002 for further details. | X | 2020-Wharton-002 |
| #3- Installation of stormwater run-off diversion on East Dewey Avenue | Borough of Wharton Engineer | No progress. Drainage issues on East Dewey Ave are being explored and feasible action being determined; refer to project 2020-Wharton-003. | X | 2020-Wharton-003 |
| #4- Develop all-hazards public education and outreach program for hazard mitigation and preparedness. | Borough of Wharton Council and OEM | Complete. Updated website to include information on emergency preparedness and power loss. In addition, resources are listed. http://www.whartonnj.com/index.php/departments/emergency-management . | - | - |



PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of Wharton was invited to participate in a risk assessment workshop in November 2019 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Borough of Wharton was invited to a mitigation action workshop in March 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Morris County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; and the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate Mitigation Measures for Floodprone Structures* (March 2007) and FEMA *Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix C (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.40-16 summarizes the comprehensive range of specific mitigation initiatives the Borough of Wharton would like to pursue in the future to reduce the effects of hazards. Some of these initiatives might be previous actions carried forward for this HMP update. Initiatives are dependent upon available funding (grants and local match availability) and can be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 criteria were used to evaluate each action, including an evaluation of the benefits and costs. For each new mitigation action, a numeric rank was assigned (-1, 0, or 1) for each of the 14 evaluation criteria. The results of this evaluation, in addition to input from the jurisdiction, were then used to prioritize the mitigation initiatives as 'High', 'Medium', or 'Low.' Table 9.40-17 summarizes the evaluation of each mitigation initiative and the resulting priority, listed by Action Number.



Table 9.40-16. Proposed Hazard Mitigation Initiatives and Associated Priority

| Initiative Number | Mitigation Initiative Name | Description of the Problem | Description of the Solution | New or Existing Assets? | Hazard(s) to be Mitigated | Goals Met | Lead and Support Agencies | Potential Funding Sources | Estimated Benefits | Estimated Cost | Timeline | Priority | Mitigation Category | CRS Category |
|-------------------|------------------------------------|---|---|-------------------------|--|-----------|---|---|--------------------|----------------|----------|----------|---------------------|--------------|
| 2020-Wharton-001 | Borough of Wharton Fire Department | The Borough of Wharton Fire Department is a critical lifeline that does not have backup power. | Purchase and install backup Generator for Fire Department. | New | All | 1, 4 | Fire, OEM | HMGP, PDM | High | Medium | Short | High | SIP | ES |
| 2020-Wharton-002 | Washington Forge Pond Dam | Washington Forge Pond Dam on the Rockway River lacks an overflow weir. In addition, the dam was inspected on 11/28/18 and sound to be Class II of Significant Hazard. | Determine and remedy deficiencies of Washington Forge Pond Dam, including an overflow weir. Update EOP to include dam. Update Washington Forge Pond Management Plan to include dam. | Existing | Flood | 1, 4 | Engineering, OEM | HMGP, PDM, Municipal budget, Open Space Levy Tax. 0.70% | Medium | Medium | Short | High | SIP | PP, SP, ES |
| 2020-Wharton-003 | East Dewey Avenue Diversion | Stormwater floods East Dewey Avenue | Install stormwater run-off diversion on East Dewey Avenue. | New | Flood, Severe Storm, Severe Winter Storm | 1, 4 | Engineering, Housing and Zoning Officer | HMGP, PDM | Medium | High | Medium | High | SIP | PP, SP |
| 2020-Wharton-004 | Severe repetitive loss property | A property on Cedar Lane is in the floodplain of the Rockway River and has severe repetitive losses. | Determine source of flooding and appropriate mitigation actions. Apply for grant funding if the property owner would like to mitigate. | Existing | Flood, Severe Storm, Severe Winter Storm | 1, 5 | Housing and Zoning Officer, Engineering | HMGP, PDM | Medium | Medium | Medium | Medium | SIP | PP |



| Initiative Number | Mitigation Initiative Name | Description of the Problem | Description of the Solution | New or Existing Assets? | Hazard(s) to be Mitigated | Goals Met | Lead and Support Agencies | Potential Funding Sources | Estimated Benefits | Estimated Cost | Timeline | Priority | Mitigation Category | CRS Category |
|-------------------|----------------------------|---|--|-------------------------|--|-----------|--|---------------------------|--------------------|----------------|----------|----------|---------------------|--------------|
| 2020-Wharton-005 | North Main Street Flooding | North Main Street near Hot Rods BBQ is subject to flooding. | Determine source of flooding and appropriate mitigation actions. | New | Flood, Severe Storm, Severe Winter Storm | 1, 4 | Engineering, g. Housing and Zoning Officer | HMGP, PDM | Medium | High | Medium | Medium | SIP | PP, SP |

Notes:

Acronyms and Abbreviations:

- CAV Community Assistance Visit
- CRS Community Rating System
- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program
- PDM Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and preserve or restore the functions of natural systems. Actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.





Table 9.40-17. Summary of Action Evaluation and Action Priority

| Initiative Number | Mitigation Initiative Name | Life Safety | Property Protection | Cost Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|-------------------|------------------------------------|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|----------------------------|-------|---------------------|
| 2020-Wharton-001 | Borough of Wharton Fire Department | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 11 | High |
| 2020-Wharton-002 | Washington Forge Pond Dam | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 10 | High |
| 2020-Wharton-003 | East Dewey Avenue Diversion | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 10 | High |
| 2020-Wharton-004 | Severe repetitive loss property | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 7 | Medium |
| 2020-Wharton-005 | North Main Street Flooding | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | Medium |

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions.



Table 9.40-18. Analysis of Mitigation Actions by Hazard and Category

| Hazard | Prevention | Property Protection | Public Education and Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilient | Community Capacity Building |
|------------------------------|-------------------------|-------------------------|--------------------------------|-----------------------------|-------------------------|-------------------------|-------------------------|-----------------------------|
| Dam Failure | 002 | 002 | 002 | 002 | 001, 002, 003, 004, 005 | 002 | 002 | 002 |
| Disease Outbreak | - | - | - | - | 001 | - | - | - |
| Drought | 002 | 002 | - | 002 | 002 | 002 | 002 | 001, 002 |
| Earthquake | - | - | - | - | 001 | - | - | - |
| Extreme Temperature | - | 001, 002 | 001, 002 | 001, 002 | 001, 002 | - | - | - |
| Flood | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 |
| Geological | - | - | 002 | 002 | 001, 002 | - | - | - |
| Harmful Algal Bloom | - | - | - | 002 | 001, 002 | - | 002 | 002 |
| Hazardous Substance | - | 001 | 001 | - | 001 | 001 | - | 001 |
| Infestation | - | - | - | - | 001 | - | - | - |
| Severe Weather | - | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 |
| Severe Winter Weather | - | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 | 001, 002, 003, 004, 005 |
| Wildfire | 001 | 001 | 001 | 001 | 001, 002 | 001 | 001 | 001 |

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

RED = high ranked hazard

ORANGE = medium ranked hazard

YELLOW = low ranked hazard

9.40.8 Staff and Local Stakeholder Involvement in Annex Development

The Borough of Wharton followed the planning process described in Section 2 (Planning Process). This annex was developed over the course of several months with input from many jurisdiction representatives. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization. The following table summarizes who participated and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.40-19. Contributors to the Annex

| Entity | Title | Method of Participation |
|----------------|-----------------|---|
| Gene Caulfield | OEM Coordinator | Attended Annex meeting on 10/8/19, Annex review and comment |
| David Young | Deputy OEM | Annex review and contribution to the mitigation strategy. |



Figure 9.40-1. Borough of Wharton Hazard Area Extent and Location Map 1

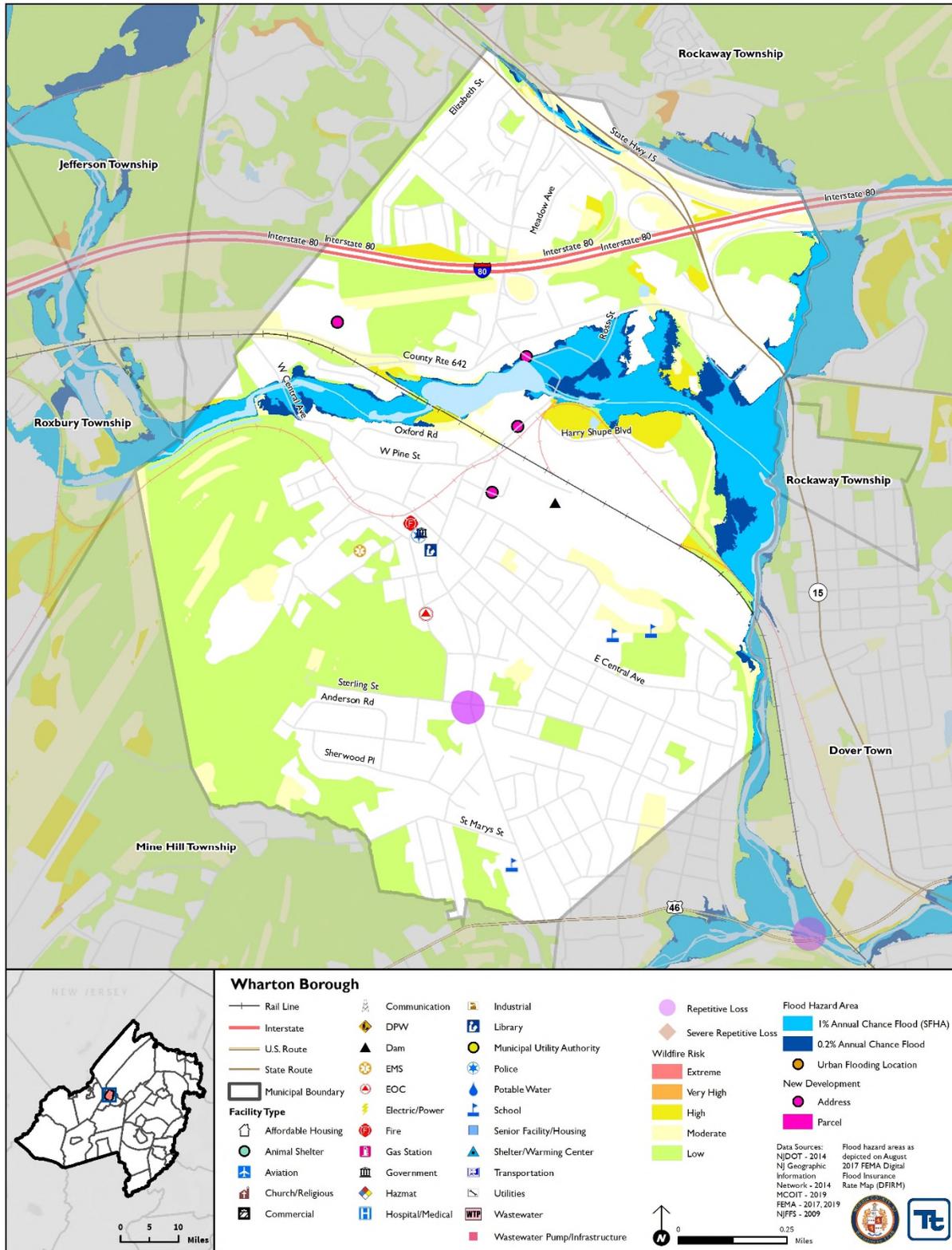
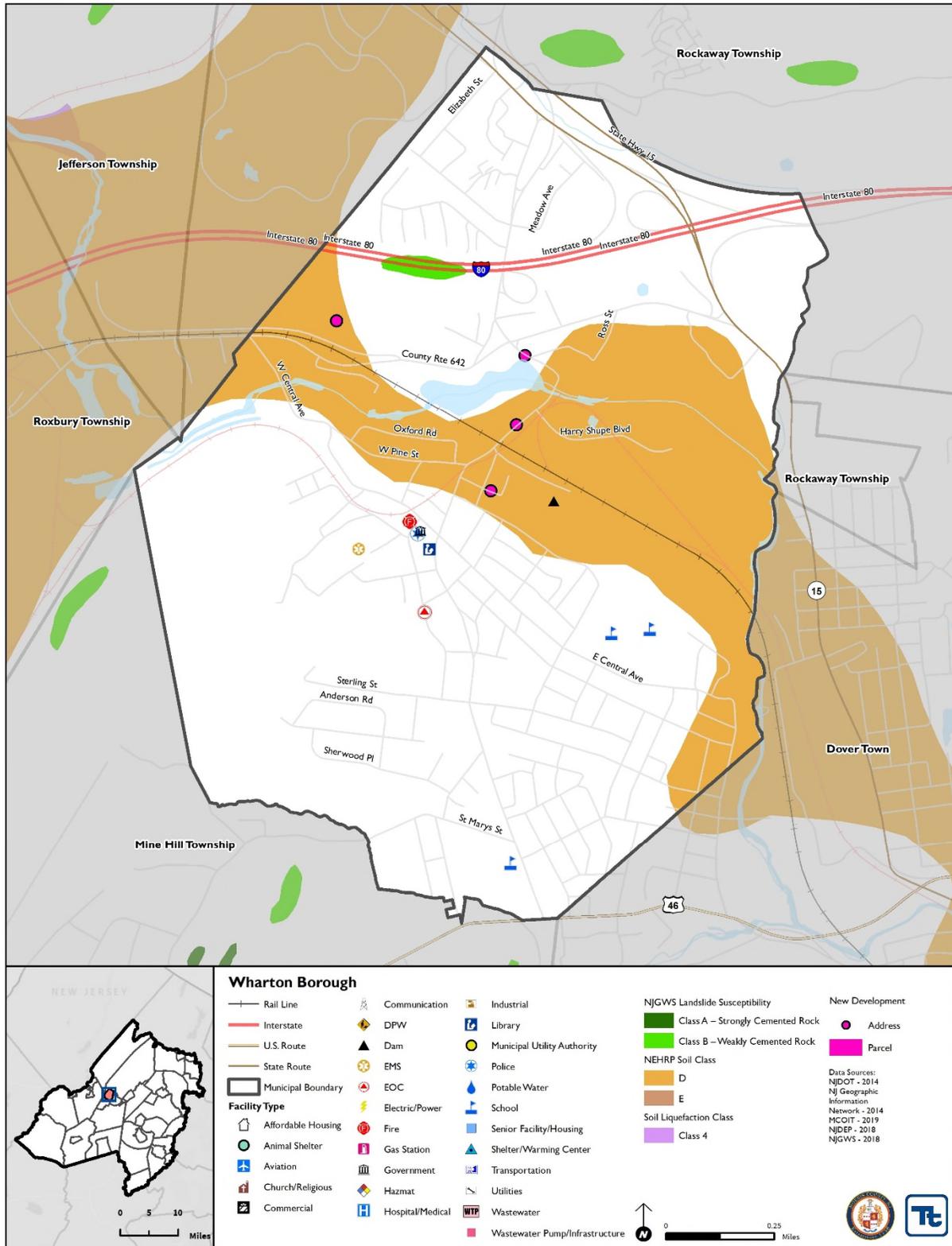




Figure 9.40-2. Borough of Wharton Hazard Area Extent and Location Map 2





Name of Jurisdiction: Wharton Borough
 Name and Title Completing Worksheet: _____

| Action Worksheet | | | |
|---|--|--|--|
| Project Name: | Borough of Wharton Fire Department | | |
| Project Number: | 2020-Wharton-001 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | All | | |
| Description of the Problem: | Lack of backup generator available during loss of power. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | Procure and install a backup generator at the Fire Department. | | |
| Is this project related to a Critical Facility or Lifeline? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Level of Protection: | High | Estimated Benefits (losses avoided): | High |
| Useful Life: | 19 years | Goals Met: | 1, 4 |
| Estimated Cost: | Medium | Mitigation Action Type: | SIP |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Short |
| Estimated Time Required for Project Implementation: | Short | Potential Funding Sources: | HMGP, PDM |
| Responsible Organization: | Wharton Fire Department, Chief and Operations Officer | Local Planning Mechanisms to be Used in Implementation if any: | Emergency Management |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Current problem continues |
| | Install generator | Medium | Cost effective solution |
| | Install solar microgrid | High | Long-term solution for multiple sites. |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



Name of Jurisdiction: Wharton Borough
 Name and Title Completing Worksheet: _____

| Action Worksheet | | |
|--------------------------------|------------------------------------|--|
| Project Name: | Borough of Wharton Fire Department | |
| Project Number: | 2020-Wharton-001 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Allow for continuity of operations of fire department which would benefit all residents of Borough |
| Property Protection | 1 | Allow for continuity of operations of fire department which would benefit all residents of Borough |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 0 | |
| Fiscal | 0 | |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 1 | All hazards |
| Timeline | 0 | |
| Agency Champion | 1 | |
| Other Community Objectives | 1 | |
| Total | 11 | |
| Priority (High/Med/Low) | High | |



Name of Jurisdiction: Wharton Borough
 Name and Title Completing Worksheet: _____

| Action Worksheet | | | |
|---|---|--|---|
| Project Name: | Washington Forge Pond Dam | | |
| Project Number: | 2020-Wharton-002 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Flood | | |
| Description of the Problem: | Washington Forge Pond Dam on the Rockway River lacks an overflow weir. In addition, the dam was inspected on 11/28/18 and found to be Class II of Significant Hazard. Flooding of roadways in area for Washington Forge Pond dam. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | Determine and remedy deficiencies of Washington Forge Pond Dam, including an overflow weir. Update EOP to include dam. Update Washington Forge Pond Management Plan to include dam. | | |
| Is this project related to a Critical Facility or Lifeline? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Level of Protection: | High | Estimated Benefits (losses avoided): | High, reduction in road closures and detours, police and DPW overtime |
| Useful Life: | TBD | Goals Met: | 1, 4 |
| Estimated Cost: | High | Mitigation Action Type: | SIP |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Short |
| Estimated Time Required for Project Implementation: | Medium | Potential Funding Sources: | HMGP, PDM, Municipal budget, Open Space Levy Tax. 0.70% |
| Responsible Organization: | Engineering, Administration | Local Planning Mechanisms to be Used in Implementation if any: | Mitigation Plan, capital improvement |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Current problem continues |
| | Install weir | High | Retains use of pond |
| | Drain pond | Low | Not feasible solution |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



Name of Jurisdiction: Borough of Wharton
 Name and Title Completing Worksheet: _____

| Action Worksheet | | |
|--------------------------------|---------------------------|---|
| Project Name: | Washington Forge Pond Dam | |
| Project Number: | 2020-Wharton-002 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Protect those in the area of the Washington Pond dam |
| Property Protection | 1 | Reduce risk of flooding in the area (roadways) of the Washington Pond dam |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 0 | |
| Fiscal | 0 | |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 0 | |
| Multi-Hazard | 0 | |
| Timeline | 1 | |
| Agency Champion | 1 | |
| Other Community Objectives | 1 | |
| Total | 10 | |
| Priority (High/Med/Low) | High | |



Name of Jurisdiction: Wharton Borough
 Name and Title Completing Worksheet: _____

| Action Worksheet | | | |
|---|--|--|---|
| Project Name: | East Dewey Avenue Diversion | | |
| Project Number: | 2020-Wharton-003 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Flood, Severe Storm, Severe Winter Storm | | |
| Description of the Problem: | Stormwater floods East Dewey Avenue | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | Install stormwater run-off diversion on East Dewey Avenue. | | |
| Is this project related to a Critical Facility or Lifeline? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| Level of Protection: | High | Estimated Benefits (losses avoided): | High, reduction in road closures and detours, police and DPW overtime |
| Useful Life: | TBD | Goals Met: | 1, 4 |
| Estimated Cost: | High | Mitigation Action Type: | SIP |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Short |
| Estimated Time Required for Project Implementation: | Medium | Potential Funding Sources: | HMGP, PDM |
| Responsible Organization: | Engineering, Administration | Local Planning Mechanisms to be Used in Implementation if any: | Mitigation Plan, capital improvement |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Current problem continues |
| | Install diversion | High | Enables road use with minimal disturbance |
| | Relocate road | High | Not feasible solution |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



Name of Jurisdiction: Borough of Wharton
 Name and Title Completing Worksheet: _____

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|--------------------------------|-----------------------------|---|
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| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Reduce risk of flooding in the area of East Dewey Avenue |
| Property Protection | 1 | Reduce the risk of flooding and damages of roadways in this part of the Borough |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 0 | |
| Fiscal | 0 | |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 0 | |
| Multi-Hazard | 0 | |
| Timeline | 1 | |
| Agency Champion | 1 | |
| Other Community Objectives | 1 | |
| Total | 10 | |
| Priority (High/Med/Low) | High | |